WHAT IS CLAIMED IS:

1. A design variable optimization system for determining a specific design variable from among a plurality of design variables according to a predetermined evaluation criterion, for a design article whose performance varies with change of each of the plurality of design variables, comprising:

performance value calculating means for performing an analysis on said design article using each of said plurality of design variables and for calculating a plurality of performance values for evaluating the performance of said design article using each of the plurality of design variables, based on the result of said analysis;

design variable determining means for determining said specific design variable from among said plurality of design variables, based on each of said plurality of performance values calculated by said performance value calculating means and using said predetermined evaluation criterion; and

analysis end time determining means for determining an end time of said analysis in said performance value calculating means so that a prescribed relation is satisfied by an end time of a period necessary for the calculation of said performance value and the end time of said analysis.

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2. The design variable optimization system according to Claim 1, wherein said analysis end time determining means determines the end time of said analysis so that a difference between the end time of the period necessary for the calculation of said performance value and the end time of said analysis becomes a predetermined, fixed value.

3. The design variable optimization system according to Claim 1, wherein the analysis on said design article performed by said performance value calculating means is a simulation concerning dynamic behavior of said design article.

4. The design variable optimization system according to Claim 2, wherein the analysis on said design article performed by said performance value calculating means is a simulation concerning dynamic behavior of said design article.

5. The design variable optimization system according to Claim 1, wherein said design article is an energy absorbing part of a car.

6. The design variable optimization system according to Claim 5, wherein said energy absorbing part of a car is a pillar of a car.

7. A design variable optimization method for determining a specific design variable from among a plurality of design variables according to a

predetermined evaluation criterion, for a design

article whose performance varies with change of each of

the plurality of design variables, comprising:

a performance value calculating step of

5 performing an analysis on said design article using

each of said plurality of design variables and for

calculating a plurality of performance values for

evaluating the performance of said design article using

each of the plurality of design variables, based on the

10 result of said analysis;

a design variable determining step of determining

said specific design variable from among said plurality

of design variables, based on each of said plurality of

performance values calculated in said performance value

15 calculating step and using said predetermined

evaluation criterion; and

an analysis end time determining step of

determining an end time of said analysis in said

performance value calculating step so that a prescribed

20 relation is satisfied by an end time of a period

necessary for the calculation of said performance value

and the end time of said analysis.

8. The design variable optimization method

according to Claim 7, wherein said analysis end time

25 determining step comprises a step of determining the

end time of said analysis so that a difference between

the end time of the period necessary for the
calculation of said performance value and the end time
of said analysis becomes a predetermined, fixed value.

9. The design variable optimization method
according to Claim 7, wherein the analysis on said
design article performed in said performance value
calculating step is a simulation concerning dynamic
behavior of said design article.

10. The design variable optimization method
according to Claim 8, wherein the analysis on said
design article performed in said performance value
calculating step is a simulation concerning dynamic
behavior of said design article.

11. The design variable optimization method
according to Claim 7, wherein said design article is an
energy absorbing part of a car.

12. The design variable optimization method
according to Claim 11, wherein said energy absorbing
part of a car is a pillar of a car.